

## WATER MAINS

Attachment A

### Domestic Mains, Sprinkler Mains, Sub-meters

Hammer Company installs site water-mains. A "main" is a water pipe that is under pressure all the time. The city, or your water company, provides water to your property. Usually there is a meter set in a plastic or concrete box near the edge of your property, where the water provider's piping ends. Piping beyond the water meter is the property owner's responsibility. The pipe between the meter and the house is called the "domestic water main." The pipe from the domestic water main to the sprinkler valves is called the "sprinkler main."

Mains on private property are usually galvanized steel, copper or PVC. They are usually between 3/4 inch and 1-1/2 inch in diameter for most single family residences. The main lines are the foundation for all water use. If the pipe is too small, or obstructed with corrosion, difficulties may arise with water fixtures on the property. People often refer to such problems as not having enough pressure, but more often the problem is not pressure but water flow. Galvanized steel mains, in particular, fill up with corrosion and have a limited life-expectancy. Galvanized steel pipe life-expectancy varies with water and soil conditions, but in most areas the maximum useful life is about 35 years. Steel pipes that are 35 years or older have served their useful life. In some areas the useful life of steel pipes can be as low as 5 years.

Some of the problems encountered with corroded or under-sized main lines include:

Inability to run more than one sink, shower, toilet, etc. at a time in the house.

Problems using plumbing fixtures in the house anytime the sprinklers are running.

Weak sprinkler systems.

Dirty, rusty water.

### Domestic Main

The domestic water main is the foundation for all water use on the property. Sprinkler systems and plumbing fixtures cannot perform well if there are problems in the main line. Many homes have 3/4 inch water meters. Even when the water meter is 3/4", the main line itself should preferably be 1", and properties with sprinkler systems should have a *one inch or larger* domestic water main. New water mains are usually copper, and sometimes PVC. Homes are required by the building code to limit the pressure into the house to 80 pounds. If the domestic main has more than 80 pounds pressure, a pressure regulator should be installed near the house.

### Sprinkler Main

The sprinkler main is the foundation for the sprinkler system. Most sprinkler mains should be 1 inch or more in diameter. Sprinkler systems perform well in the 70 to 100 pound range. Excessive pressure can shorten the life of the system, especially the automatic valves. If the system has too much pressure, the heads tend to mist, and more of the water drifts into the air than onto the ground. If the pressure to a property exceeds 100 pounds, it is usually advisable to install a regulator on the sprinkler main to reduce the pressure to 80 to 100 pounds.

It is to be expected that problems will occur on the sprinkler main from time to time. To minimize inconvenience, not to mention emergency over-time charges, it is advisable to put a shut-off valve on the sprinkler main, separate from the house shut-off. This way, in case of problems, the house water can be left unaffected.

### Sub-Meters

In many areas of southern California the sewer charges are based on water use. If a property has a large landscaped area this can result in very high charges based on landscape watering that has nothing to do with the sewer. In the City of Los Angeles, and some other communities, these charges can be reduced by installing a second water meter called a sub-meter. When sub-meters are installed the water bill can be broken down into two parts with lower rates for landscape water. In effect, the property will have two water meters - one meter for the domestic water use, and one meter for the landscaping.

The master meter is the one installed by the DWP where the water enters the property. It meters all of the water flowing to the property.

The **sub-meter** will meter the water to the house or to the landscaping depending upon owners choice.

City sewer charges are not applied to landscape areas. On a large property this is sometimes very significant. On a smaller property the separation charges will be of little or no value.

Hammer Company, Inc. is licensed to install Sub Meters. We offer a full service, which includes obtaining the permit from the city building department, ordering the meter from the DWP, picking up the meter, installation, and city inspection.

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